

WHAT IS CLAIMED IS:

1. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

detecting information about regions of an area of the first technology network;

and

deciding initiating a handover procedure between the first and second technology networks based on the detected region information.

2. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

arranging border access nodes for accessing the first technology network at border regions of an area of the first technology network, the border access nodes indicating information about a border region;

arranging non-border access nodes for accessing the first technology network at non-border regions of the area of the first technology network, the non-border access nodes indicating information about a non-border region;

detecting the information about the border and non-border regions; and

deciding initiating a handover procedure between the first and second technology networks based on the detected information.

3. The method according to claim 2, comprising the step of:

in case the detected region information is border region information, aggressively deciding initiating the handover procedure from the first technology network to the second technology network.

4. The method according to claim 2, further comprising the step of:
in case the detected region information is non-border region information,
conservatively deciding initiating the handover procedure from the first technology
network to the second technology network.

5. The method according to claim 2, further comprising the steps of:
detecting a signal strength from the first technology network; and
in case the detected signal strength is below a predetermined threshold,
deciding initiating the handover procedure between the first and second technology
networks based on the detected region information.

6. The method according to claim 2, further comprising the steps of:
detecting a signal strength from the first technology network; and
in case the detected signal strength is below a predetermined threshold and
the detected region information is border region information, aggressively deciding
initiating the handover procedure from the first technology network to the second
technology network.

7. The method according to claim 2, further comprising the steps of:
detecting a signal strength from the first technology network; and
in case the detected signal strength is below a predetermined threshold and
the region information is non-border region information, conservatively deciding
initiating the handover procedure from the first technology network to the second
technology network.

8. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

- detecting information about regions of an area of the first technology network;
- and
- deciding preparing a handover procedure between the first and second technology networks based on the detected region information.

9. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

- arranging border access nodes for accessing the first technology network at border regions of an area of the first technology network, the border access nodes indicating information about a border region;
- arranging non-border access nodes for accessing the first technology network at non-border regions of the area of the first technology network, the non-border access nodes indicating information about a non-border region;
- detecting the information about the border and non-border regions; and
- deciding preparing a handover procedure between the first and second technology networks based on the detected information.

10. The method according to claim 9, comprising the step of:

- in case the detected region information is border region information, aggressively deciding preparing the handover procedure from the first technology network to the second technology network.

11. The method according to claim 9, comprising the step of:

in case the detected region information is non-border region information, conservatively deciding preparing the handover procedure from the first technology network to the second technology network.

12. The method according to claim 9, further comprising the steps of:
detecting a signal strength from the first technology network; and
in case the detected signal strength is below a predetermined threshold, deciding preparing the handover procedure between the first and second technology networks based on the detected region information.

13. The method according to claim 9, further comprising the steps of:
detecting a signal strength from the first technology network; and
in case the detected signal strength is below a predetermined threshold and the detected region information is border region information, aggressively deciding preparing the handover procedure from the first technology network to the second technology network.

14. The method according to claim 9, further comprising the steps of:
detecting a signal strength from the first technology network; and
in case the detected signal strength is below a predetermined threshold and the region information is non-border information, conservatively deciding preparing the handover procedure from the first technology network to the second technology network.

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15. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

detecting information about regions of an area of the first technology network;
and

deciding preparing a handover procedure between the first and second technology networks based on the detected region information, and deciding performing actual handover between the first and second technology networks based on the detected region information.

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16. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

arranging border access nodes for accessing the first technology network at border regions of an area of the first technology network, the border access nodes indicating information about a border region;

arranging non-border access nodes for accessing the first technology network at non-border regions of the area of the first technology network, the non-border access nodes indicating information about a non-border region;

detecting the information about the border and non-border regions; and

deciding preparing a handover procedure and performing actual handover between the first and second technology networks based on the detected information.

17. The method according to claim 16, further comprising the steps of:
in case the detected region information is border region information,
aggressively deciding preparing the handover procedure from the first technology network to the second technology network;

detecting a signal strength from the first technology network; and

in case the detected signal strength is below a predetermined threshold, deciding performing the actual handover between the first and second technology networks based on the detected region information.

18. The method according to claim 16, further comprising the steps of:

in case the detected region information is non-border region information, conservatively deciding preparing the handover procedure from the first to second technology network;

detecting a signal strength from the first technology network; and

in case the detected signal strength is below a predetermined threshold, deciding performing the actual handover between the first and second technology networks based on the detected region information.

19. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

detecting information about regions of an area of the first technology network;

detecting information about a movement of a mobile node in the first technology network; and

deciding initiating a handover procedure between the first and second technology networks based on the detected region information and movement information.

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20. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

arranging border access nodes for accessing the first technology network at border regions of an area of the first technology network, the border access nodes indicating information about a border region;

arranging non-border access nodes for accessing the first technology network at non-border regions of the area of the first technology network, the non-border access nodes having overlapping coverage with that of the border access nodes and indicating information about a non-border region;

detecting the information about the border and non-border regions;

storing region information detected at certain time instances;

detecting information about a movement of a mobile node in the first technology network on the basis of detected and stored region information; and

deciding initiating a handover procedure between the first and second technology networks based on the detected region and movement information.

21. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

detecting information about regions of an area of the first technology network;

detecting information about a movement of a mobile node in the first technology network; and

deciding preparing a handover procedure between the first and second technology networks based on the detected region information and movement information.

22. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

arranging border access nodes for accessing the first technology network at border regions of an area of the first technology network, the border access nodes indicating information about a border region;

arranging non-border access nodes for accessing the first technology network at non-border regions of the area of the first technology network, the non-border access nodes having overlapping coverage with that of the border access nodes and indicating information about a non-border region;

detecting the information about the border and non-border regions;

storing region information detected at certain time instances;

detecting information about a movement of a mobile node in the first technology network on the basis of detected and stored region information; and

deciding preparing a handover procedure between the first and second technology networks based on the detected region and movement information.

23. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

detecting information about regions of an area of the first technology network;

detecting information about a movement of a mobile node in the first technology network; and

deciding preparing a handover procedure between the first and second technology networks based on the detected region information and movement information, and deciding performing actual handover between the first and second technology networks based on the detected region information and movement information.

24. A method of controlling handover between a first technology network and a second technology network, comprising the steps of:

arranging border access nodes for accessing the first technology network at border regions of an area of the first technology network, the border access nodes indicating information about a border region;

arranging non-border access nodes for accessing the first technology network at non-border regions of the area of the first technology network, the non-border access nodes having overlapping coverage with that of the border access nodes and indicating information about a non-border region;

detecting the information about the border and non-border regions;

storing region information detected at certain time instances;

detecting information about a movement of a mobile node in the first technology network on the basis of detected and stored region information; and

deciding preparing a handover procedure and deciding performing actual handover between the first and second technology networks based on the detected region and movement information.

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25. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about regions of an area of the first technology network; and

means for deciding initiating a handover procedure between the first and second technology networks based on the detected region information.

26. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about a border region which is transmitted by border access nodes for accessing the first technology network which are located at border regions of an area of the first technology network and information about a non-border region which is transmitted by non-border access nodes for accessing the first technology network which are located at non-border regions of the area of the first technology network; and

means for deciding initiating a handover procedure between the first and second technology networks based on the detected information.

27. The mobile node according to claim 26, further comprising means for aggressively deciding initiating the handover procedure from the first to the second technology network in case the detected region information is border region information.

28. The mobile node according to claim 26, further comprising means for conservatively deciding initiating the handover procedure from the first to the second technology network in case the detected region information is non-border region information.

29. The mobile node according to claim 26, further comprising:
means for detecting a signal strength from the first technology network; and
means for deciding initiating the handover procedure between the first and second technology networks based on the detected region information in case the detected signal strength is below a predetermined threshold.

30. The mobile node according to claim 26, further comprising:
means for detecting a signal strength from the first technology network; and
means for aggressively deciding initiating the handover procedure from the first to the second technology network in case the detected signal strength is below a predetermined threshold and the detected region information is border region information.

31. The mobile node according to claim 26, further comprising:
means for detecting a signal strength from the first technology network; and
means for conservatively deciding initiating the handover procedure from the first to the second technology network in case the detected signal strength is below a predetermined threshold and the region information is non-border information.

32. A mobile node for controlling handover between a first technology network and a second technology network, comprising: 14
means for detecting information about regions of an area of the first technology network; and
means for deciding preparing a handover procedure between the first and second technology networks based on the detected region information.

33. A mobile node for controlling handover between a first technology network and a second technology network, comprising: 15
means for detecting information about a border region which is transmitted by border access nodes for accessing the first technology network which are located at border regions of an area of the first technology network and information about a non-border region which is transmitted by non-border access nodes for accessing the

first technology network which are located at non-border regions of the area of the first technology network; and

means for deciding preparing a handover procedure between the first and second technology networks based on the detected information.

34. The mobile node according to claim 33, further comprising means for aggressively deciding preparing the handover procedure from the first to the second technology network in case the detected region information is border region information.

35. The mobile node according to claim 33, further comprising means for conservatively deciding preparing the handover procedure from the first to the second technology network in case the detected region information is non-border region information.

36. The mobile node according to claim 33, further comprising:
means for detecting a signal strength from the first technology network; and
means for deciding preparing the handover procedure between the first and second technology networks based on the detected region information in case the detected signal strength is below a predetermined threshold.

37. The mobile node according to claim 33, further comprising:
means for detecting a signal strength from the first technology network; and
means for aggressively deciding preparing the handover procedure from the first to the second technology network in case the detected signal strength is below a

predetermined threshold and the detected region information is border region information.

38. The mobile node according to claim 33, further comprising:
 means for detecting a signal strength from the first technology network; and
 means for conservatively deciding preparing the handover procedure from the first to the second technology network in case the detected signal strength is below a predetermined threshold and the region information is non-border information.

39. A mobile node for controlling handover between a first technology network and a second technology network, comprising: 16

means for detecting information about regions of an area of the first technology network; and
 means for deciding preparing a handover procedure between the first and second technology networks based on the detected region information, and means for deciding performing actual handover between the first and second technology networks based on the detected region information.

40. A mobile node for controlling handover between a first technology network and a second technology network, comprising: 17

means for detecting information about a border region which is transmitted by border access nodes for accessing the first technology network which are located at border regions of an area of the first technology network and information about a non-border region which is transmitted by non-border access nodes for accessing the first technology network which are located at non-border regions of the area of the first technology network; and

means for deciding preparing a handover procedure and means for deciding performing actual handover between the first and second technology networks based on the detected information.

41. The mobile node according to claim 40, further comprising:

means for aggressively deciding preparing the handover procedure from the first to the second technology network in case the detected region information is border region information;

means for detecting a signal strength from the first technology network; and

means for deciding performing the actual handover between the first and second technology networks based on the detected region information in case the detected signal strength is below a predetermined threshold.

42. The mobile node according to claim 40, further comprising:

means for conservatively deciding preparing the handover procedure from the first to the second technology network in case the detected region information is non-border region information;

means for detecting a signal strength from the first technology network; and

means for deciding performing the actual handover between the first and second technology networks based on the detected region information in case the detected signal strength is below a predetermined threshold.

43. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about regions of an area of the first technology network;

means for detecting information about a movement of a mobile node in the first technology network; and

means for deciding initiating a handover procedure between the first and second technology networks based on the detected region information and movement information.

44. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about a border region which is transmitted by border access nodes for accessing the first technology network which are located at border regions of an area of the first technology network and information about a non-border region which is transmitted by non-border access nodes for accessing the first technology network which are located at non-border regions of the area of the first technology network, the non-border access nodes having overlapping coverage with that of the border access nodes;

means for storing region information detected at certain time instances;

means for detecting information about a movement of a mobile node in the first technology network on the basis of detected and stored region information; and

means for deciding initiating a handover procedure between the first and second technology networks based on the detected region and movement information.

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45. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about regions of an area of the first technology network;

means for detecting information about a movement of a mobile node in the first technology network; and

means for deciding preparing a handover procedure between the first and second technology networks based on the detected region information and movement information.

46. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about a border region which is transmitted by border access nodes for accessing the first technology network which are located at border regions of an area of the first technology network and information about a non-border region which is transmitted by non-border access nodes for accessing the first technology network which are located at non-border regions of the area of the first technology network, the non-border access nodes having overlapping coverage with that of the border access nodes;

means for storing region information detected at certain time instances;

means for detecting information about a movement of a mobile node in the first technology network on the basis of detected and stored region information; and

means for deciding preparing a handover procedure between the first and second technology networks based on the detected region and movement information.

47. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about regions of an area of the first technology network;

means for detecting information about a movement of a mobile node in the first technology network; and

means for deciding preparing a handover procedure between the first and second technology networks based on the detected region information and movement information, and means for deciding performing actual handover between the first and second technology networks based on the detected region information and movement information.

48. A mobile node for controlling handover between a first technology network and a second technology network, comprising:

means for detecting information about a border region which is transmitted by border access nodes for accessing the first technology network which are located at border regions of an area of the first technology network and information about a non-border region which is transmitted by non-border access nodes for accessing the first technology network which are located at non-border regions of the area of the first technology network, the non-border access nodes having overlapping coverage with that of the border access nodes;

means for storing region information detected at certain time instances;

means for detecting information about a movement of a mobile node in the first technology network on the basis of detected and stored region information; and

means for deciding preparing a handover procedure and deciding performing actual handover between the first and second technology networks based on the detected region and movement information.

49. An access node of a first technology network, comprising:
 means for setting information about at least a first region and a second region
 of an area of the first technology network in which region the access node is located;
 and
 means for transmitting the region information.

50. The access node according to claim 49, in which the access node is a
 WLAN access point and the setting means is capable of setting region information by
 assigning proper values to certain bits reserved in the beacon frames of the WLAN
 access points, the bit values indicating the region information where the access point
 is located.

51. A communication network system, comprising:
 a mobile node according to claim 49.